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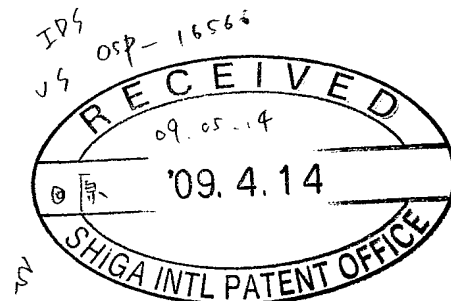
BREVATOME

GROUP

Date : March 3, 2009

Y.REF. : OSP-28480O.REF. : **SR 27439.DIV.II/JP/DB**
SP-8678-DB/mbRE : European Patent Application
N° 08 169 435.8 of February 02, 2004

Applicant(s) : NIPPON TELEGRAPH & TELEPHONE CORP

EXTENDED EUROPEAN SEARCH REPORT**SHIGA INTERNATIONAL PATENT
OFFICE**
Gran Tokyo South Tower
1-9-2 Marunouchi, Chiyoda-Ku
Tokyo 100-6620
JAPON

Dear Sirs,

With regard to the patent application cited above, we have just received the European search report and the European search opinion issued by the European Patent Office. You will find enclosed a copy of these documents.

In the present case, the search opinion is negative. Should you wish to receive our analysis of this opinion, please let us know as soon as possible.

At this stage of the procedure, **responding to the opinion is not mandatory**. However, should we not respond, the first communication of the Examining Division would simply refer back to the objections raised in the search opinion.

The request for examination may be filed by the applicant up to the *end of six months* after the date on which the European Patent Bulletin mentions the publication of the European search report. We will inform you of the date of publication as soon as we are advised by the European Patent Office.

We take the opportunity to join our debit note regarding the present transmission.

Yours faithfully,

D. du BOISBAUDRY

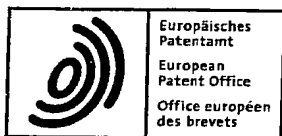
Encl. : Search report
Search opinion
Cited document(s)
Debit note

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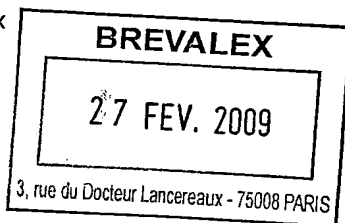
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this communication:
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Date
26.02.09

Reference SR27439DIV2JPDB	Application No./Patent No. 08169435.8 - 2416
Applicant/Proprietor Nippon Telegraph and Telephone Corporation	

Communication

The extended European search report is enclosed.

The extended European search report includes, pursuant to Rule 62 EPC, the European search report (R. 61 EPC) or the partial European search report/ declaration of no search (R. 63 EPC) and the European search opinion.

Copies of documents cited in the European search report are attached.

☒ 1 additional set(s) of copies of such documents is (are) enclosed as well.

The following have been approved:

☒ Abstract ☒ Title

☐ The Abstract was modified and the definitive text is attached to this communication.

The following figure(s) will be published together with the abstract: 11

Refund of the search fee

If applicable under Article 9 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.



EUROPEAN SEARCH REPORT

Application Number
EP 08 16 9435

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	BALA RAJAGOPALAN TELLUM ET AL: "IP over Optical Networks: A Framework; draft-many-ip-optical-framework-02.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, no. 2, 24 November 2000 (2000-11-24), XP015032092 ISSN: 0000-0004 * page 1 - page 19 *	1-4	INV. H04Q11/00 H04L12/56
A	DIMITRIS PENDARAKIS BALAJAGOPALAN DEBANJAN SAHA TELLUM INC: "Routing Information Exchange in Optical Networks; draft-prs-optical-routing-01.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, no. 1, 24 November 2000 (2000-11-24), XP015034082 ISSN: 0000-0004 Chapter 4.1.1 "Flat Routing Organization" * page 4 *	1-4	
A	DANIEL O AWDUCHE MOVASZ NETWORKS YAKOV REKHTER JUNIPER NETWORKS JOHN DRAKE CALIENT NETWORKS ROB COLTUN REDBACK NETWORKS: "Multi-Protocol Lambda Switching; draft-awduche-mpls-te-optical-03.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, no. 3, 1 April 2001 (2001-04-01), XP015010453 ISSN: 0000-0004 Complete Chapter 6 "MPLS Traffic Engineering as a Generic Control Plane for OXCs" * page 10 - page 15 * ----- -/--	1-4	TECHNICAL FIELDS SEARCHED (IPC) H04Q H04L
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 February 2009	Examiner Raible, Markus
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

EUROPEAN SEARCH REPORT

Application Number
EP 08 16 9435

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	<p>ERIC MANNIE-EDITOR: "Generalized Multi-Protocol Label Switching (GMPLS) Architecture draft-ietf-ccamp-gmpls-architecture-03.txt ; draft-ietf-ccamp-gmpls-architecture-03.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, vol. ccamp, no. 3, August 2002 (2002-08), XP015001496 ISSN: 0000-0004 * page 3 - page 16 *</p>	1-4	<p>TECHNICAL FIELDS SEARCHED (IPC)</p>
A	<p>OLIVIER DUROYON RUDY HOEBEKE HANS DE NEVE ALCATEL: "Triggering and advertising lightpaths in an IP over optical network; draft-duroyon-te-ip-optical-00.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, 1 July 2000 (2000-07-01), XP015012692 ISSN: 0000-0004 * the whole document *</p>	1-4	
A	<p>KIREETI KOMPPELLA (JUNIPER NETWORKS) YAKOV REKHTER (CISCO SYSTEMS) DANIEL O AWDUCHE (UUNET) ALAN HANNAN (GLOBAL CROSSING) GISLI HJA: "Extensions to IS-IS/OSPF and RSVP in support of MPL(ambda)S; draft-kompella-mpls-optical-00.txt" STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, 1 February 2000 (2000-02-01), XP015031121 ISSN: 0000-0004 page numbers refer to BNS pages of printout; Chapters 3.4. "Control channels, data channels, and IP links" and 3.5. "Forwarding adjacencies" * page 10 - page 16 *</p> <p style="text-align: right;">-/--</p>		
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 February 2009	Examiner Raible, Markus
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

EUROPEAN SEARCH REPORT

Application Number
EP 08 16 9435

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	KATZ JUNIPER NETWORKS D YEUNG PROCKET NETWORKS K KOMPELLA JUNIPER NETWORKS D: "Traffic Engineering Extensions to OSPF Version 2 *** Draft ***; draft-katz-yeung-ospf-traffic-09.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, no. 9, 1 October 2002 (2002-10-01), XP015003899 ISSN: 0000-0004 * the whole document *	1-4	TECHNICAL FIELDS SEARCHED (IPC)
A	MANNIE (EBONE) G BERNSTEIN (CIENA) BALA RAJAGOPALAN (TELLIUM) MIKE RAFTELIS (WHITEROCK) DIMITRI PAPADIMITRIOU (ALCATEL) OSPF-ISIS-: "Extensions to OSPF and IS-IS in support of MPLS for SDH/SONET Control; draft-mannie-mpls-sdh-ospf-isis-01.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, no. 1, 1 July 2001 (2001-07-01), XP015032034 ISSN: 0000-0004 * the whole document *	1-4	
A	US 2003/012189 A1 (NOMURA YUJI [JP] ET AL) 16 January 2003 (2003-01-16) * paragraph [0058] - paragraph [0068] * * paragraph [0105] *	1-4	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 February 2009	Examiner Raible, Markus
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

5
EPO FORM 1503 03.82 (P04C01)

EP 08 16 9435

19-02-2009

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003012189 A1	16-01-2003	JP 2003032280 A	31-01-2003

The examination is being carried out on the **following application documents**:

Description, Pages

1-45 filed in electronic form on 19.11.2008

Claims, Numbers

1-4 filed in electronic form on 19.11.2008

Drawings, Sheets

1/19-19/19 filed in electronic form on 19.11.2008

1 Reference is made to the following documents; the numbering will be adhered to in the rest of the procedure:

- D1: BALA RAJAGOPALAN TELLUM ET AL: "IP over Optical Networks: A Framework; draft-many-ip-optical-framework k-02.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, no. 2, 24 November 2000 (2000-11-24), XP015032092 ISSN: 0000-0004
- D2: DIMITRIS PENDARAKIS BALA RAJAGOPALAN DEBANJAN SAHA TELLUM INC: "Routing Information Exchange in Optical Networks; draft-prs-optical-routing-01.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, no. 1, 24 November 2000 (2000-11-24), XP015034082 ISSN: 0000-0004
- D3: DANIEL O AWDUCHE MOVAZ NETWORKS YAKOV REKHTER JUNIPER NETWORKS JOHN DRAKE CALIENT NETWORKS ROB COLTUN REDBACK NETWORKS: "Multi-Protocol Lambda Switching;; draft-awduche-mpis-te-optical-03.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, no. 3, 1 April 2001 (2001-04-01), XP015010453 ISSN: 0000-0004

- D4: ERIC MANNIE-EDITOR: "Generalized Multi-Protocol Label Switching (GMPLS) Architecture draft-ietf-ccamp-gmpls-architecture-03.txt ; draft-ietf-ccamp-gmpls-architecture-03.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, vol. ccamp, no. 3, August 2002 (2002-08), XP015001496 ISSN: 0000-0004
- D5: OLIVIER DUROYON RUDY HOEBEKE HANS DE NEVE ALCATEL: "Triggering and advertising lightpaths in an IP over optical network; draft-duroyon-te-ip-optical-00.txt" IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH, 1 July 2000 (2000-07-01), XP015012692 ISSN: 0000-0004

2 The application is not allowable as it does not comply with the requirements of Article 84 EPC for the following reasons:

2.1 The vague and imprecise statement " within the range of the concept" in the description on page 44, line 24 to page 45, line 1 implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in a lack of clarity of the claims (Article 84 EPC) when the description is used to interpret the claims (see Guidelines C-III, 4.4). This statement should therefore be amended to remove this inconsistency.

2.2 Independent claim 1 is not clear in the sense of Article 84 EPC for the following reasons:

2.2.1 Line 4 to 5 on page 46 specifies the setting [of] communication lines among the packet exchangers. The technical meaning of "setting a communication line" is unclear.

2.2.2 Line 10 on page 46 (also later occurrences) specifies a "line path". There is no clear definition of a "line path", neither in the claims nor in the description. Please give an example for a real life implementation in commonly known technical terms.

2.2.3 The same applies to the term "packet path", first introduced in line 17 on page 46 of claim 1. Please give an example for a real life implementation in commonly known technical terms.

- 2.2.4 Line 22 to 23 on page 47 of claim 1 specifies "selecting paths, being used for the new communication lines". It is not clear, if this is a line path or a packet path. Secondly, the relation between communication line and path is not clear. The description and the figures (e.g. page 4, line 20 to 21 and Fig. 16) imply that a path is a composite object, whereas a communication line is a basic entity. It is not clear, how paths may be used to set up a communication line (see also first objection in this paragraph).
- 2.2.5 Line 15 to 17 on page 47 are also unclear, because it is not clear if new physical/low layer connections are introduced into the network or if logical/higher layer connections are referred to.
- 2.2.6 In total, the passage from line 15 to line 25 on page 47 "the cooperative control sections have functions for receiving instructions regarding new communication lines, referring to two pieces of information, i.e., connection information, with respect to line-exchanging-network, collected by the section for controlling line paths, and connection information with respect to packet-exchange collected by the section for controlling packet paths, selecting paths, being used for the new communication lines, and instructing the section for controlling line paths to set paths being used for the new communication lines" is unclear."

With respect to Article 84 EPC (support in the description) and Article 83 EPC (disclosure in a manner sufficiently clear and complete for it to be carried out by the person skilled in the art), the applicant is kindly requested to give a detailed implementation example in concrete technical terms in order to find out what is actually done here. The example should contain a) a concrete example for connection information with respect to line-exchanging network, b) connection information with respect to packet-exchange and c) (see : "referring to two pieces of information) a concrete example how these two pieces of information are actually used.

- 2.3 Similar objections apply to corresponding passages in claims 3 and 4. Consequently, said claims are also not allowable under Article 84 EPC.

2.4 Claims 3 and 4 specify an exchanger **in an** information transmission network system. This is not clear in the sense of Article 84 EPC, see Guidelines C-III-4.15.

3 The application is not allowable under Article 52 EPC because it does not meet the requirements of Article 54 EPC for the following reasons:

3.1 With respect to independent claim 1, document D1=XP15032092 discloses an information transmission network system, having a plurality of line exchangers and a plurality of packet exchangers, for setting communication lines among the packets exchangers, the line exchangers and the packet exchangers being connected by communication lines (page 7, chapter 5.1 "Network Interconnection", first paragraph, "The network model ... IP packets."), wherein,

the line exchangers have a line switch and a section for controlling line paths; the line switch has a function for connecting the communication lines, connected to the line exchangers, arbitrarily (page 5, definition of OXC, introduces control-plane processor, see also page 7, paragraph 2 to 4, "The optical network ... forward path");

each of the packets exchangers, connected to the line exchangers, has a packet switch, a section for controlling line paths, a section for controlling packet paths, and a cooperative control section (page 9, paragraph with description of Direct Interface, see also page 12, chapter 6.2 "Unified Service Model", see also page 13, chapter 7, first sentence, differentiation between control and data plane);

the packet switch has functions for selecting communication lines for transmission and outputting in accordance with packet-ingress-side's information transmitted via the communication lines (this is the basic task of a router and is implicitly disclosed in the term router, routers are disclosed in the passage above, ;

the sections for controlling line paths in the line exchangers are connected to the sections for controlling line paths in other line exchangers via lines [] among [the] line exchangers (see page 8, sentence "The IP-based control plane issue is that of designing standard signalling and routing protocols for coherent end-to-end provisioning and restoration of lightpaths across multiple optical sub-networks.", page 9, sentence "Here, we merely note that since the optical network implements an IP-based control plane, it is possible in principle to harmonize the control flow across the UNI and the NNI and eliminate the distinction between them.", and

page 28, sentence "For example, the control processor in an OXC may fail, affecting signalling and other internodal control communication. Similarly, the control channel between OXCs may be affected temporarily by a failure.". The above passages demonstrate, that a control plane for exchange of signalling and routing information exists; the exchange of such information via lines is trivial and implicitly disclosed; it is also implicitly disclosed that such information (signalling, routing) is exchanged among corresponding signalling/routing instances in network nodes.

the sections for controlling line paths in the packet exchangers are connected to at least the sections for controlling line paths in the line exchangers via lines among the packet exchangers and the line exchangers (see page 12, chapter 6.2 "Unified Service Model", see also page 13, chapter 7, first complete paragraph, in particular peer relation on control plane, see also page 14, Chapter 7.1., "Interconnection Models", in particular "The Peer Model" and "The Augmented Model", see also page 15, chapter 7.2.1 "Integrated Routing, first paragraph, sentence "Such an LSP can be established using MPLS signalling ..."; the exchange of such information via lines is trivial and implicitly disclosed);

the sections for controlling line paths in the exchangers and the sections for controlling line paths in the packet exchangers have a function for acknowledging line connection conditions in a communication network, by exchanging information of the communication conditions among the communication lines (page 15, chapter 7.2.1 "Integrated Routing, first paragraph, first four sentences, "This routing approach ... optical networks");

the section for controlling packet paths acknowledges connection - related - information with respect to packet exchange among the packet exchangers connected via the communication lines, by exchanging the information for the packet paths via the communication lines, and determines the communication lines for output in accordance with the packet-ingress-side's information (this is the task of a router and achieved by using a routing protocol like OSPF, the use of OSPF or another routing protocol is indicated on page 15, chapter 7.2.1 "Integrated Routing, first paragraph, first four sentences, "This routing approach ... optical networks");

the cooperative control sections have functions for receiving instructions regarding new communication lines, referring to two pieces of information, i.e., connection

information, with respect to line-exchanging-network, collected by the section for controlling line paths, and connection information with respect to packet-exchange collected by the section for controlling packet paths, selecting paths, being used for the new communication lines, and instructing the section for controlling line paths to set paths being used for the new communication lines (as objected above, the exact meaning of this passage is unclear; page 15, chapter 7.2.1 "Integrated Routing, first three paragraphs, seems to disclose the specified features: as an example, the decision to carry out a path computation across the optical domain to route a label switched path can only be determined by routing considerations; the path computation itself necessarily has to take e.g. the topology of the optical network into account {connection information, with respect to line-exchanging-network})

the section for controlling line paths has functions for transmitting messages to the line exchangers to set up lines in accordance with the instructed paths so that the line exchangers, receiving the messages for controlling and setting the connected lines, set up the communication lines, and sending control messages to the line exchangers for setting the lines in accordance with the instructed paths (page 15, chapter 7.2.1 "Integrated Routing, first paragraph, sentence "Such an LSP can be established using MPLS signalling ...").

As all features of claim 1 are at least implicitly disclosed in Document D1, claim 1 is not new in the sense of Article 54 EPC and is therefore not allowable under Article 52 EPC.

- 3.2 Similar objections and the same passages as cited for claim 1 also apply to independent claims 3 and 4. Consequently, claims 3 and 4 are also not new in the sense of Article 54 EPC and are therefore not allowable under Article 52 EPC.
- 4 The subject matter of claim 2 is a matter of normal design procedure. Consequently, claim 2 does not involve an inventive step in the sense of Article 56 EPC and is therefore not allowable under Article 52 EPC.
- 5 If the applicant wants to file amendments in the response to the above objections, the applicant is requested to also attend to the following matters:
 - 5.1 New independent claims should be drafted taking account of Rule 43(1) EPC where the features known from document D1 should be put into the preamble.

The applicant should also indicate in the letter of reply the difference of the subject-matter of the new claim vis-a-vis the state of the art (in particular document D1) and the significance thereof.

- 5.2 Reference signs in parentheses should be inserted in all the claims to increase their intelligibility (Rule 43(7) EPC). This applies to both the preamble and characterising portion. Where a method claim makes reference to apparatus features, these should also be accompanied by the respective reference signs wherever appropriate.
- 5.3 When filing amended claims the applicant should at the same time bring the description into conformity with the amended claims (Rule 42(1)c EPC). To meet the requirements of Rule 42(1)b EPC, the documents D1 to D5 should be identified in the description and the relevant background art disclosed therein should be briefly discussed.
- 5.4 Care should be taken during revision, especially of the introductory portion and any statements of problem or advantage, not to add subject-matter which extends beyond the content of the application as originally filed (Article 123(2)EPC).

In order to facilitate the examination of the conformity of the amended application with the requirements of Article 123(2) EPC, the applicant is requested to clearly identify the amendments carried out, irrespective of whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based.

If the applicant regards it as appropriate, these indications could be submitted in handwritten form on a copy of the relevant parts of the application as filed.

- 5.5 Provisionally, the applicant is pointed to rule 137(3) EPC. Accordingly, the Examining Division may refuse further amendments after a first amendment in the examination phase, if substantial objections to the application (i.e. according to Art. 52, 54, 56, 84 EPC) have not yet been overcome.
- 5.6 Provisionally, the applicant is informed, that the application may be refused under Article 97(2) EPC if the requirements of the EPC are not met. In this particular case, the application may be refused, if the requirements of Articles 84, 52, 54, 56 and 123 EPC are not complied with.

Bitte beachten Sie, dass angeführte Nichtpatentliteratur (wie z. B. wissenschaftliche oder technische Dokumente) je nach geltendem Recht dem Urheberrechtsschutz und/oder anderen Schutzarten für schriftliche Werke unterliegen könnte. Die Vervielfältigung urheberrechtlich geschützter Texte, ihre Verwendung in anderen elektronischen oder gedruckten Publikationen und ihre Weitergabe an Dritte ist ohne ausdrückliche Zustimmung des Rechtsinhabers nicht gestattet.

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